# CALL NO. 08-1 FOR PROFESSIONAL SERVICES TO BE PROVIDED TO THE CITY OF SANTA CLARA, CALIFORNIA BY NATIONAL RESOURCE MANAGEMENT, INC.

The Parties to this Call No. 08-1 ("Call") agree that on this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2008, this Call is made pursuant to the terms of a Call Agreement between the Parties entitled, "Call Agreement by and Between the City of Santa Clara, California and National Resource Management, Inc., of the same date, the terms of which are incorporated by this reference. This Call describes the Services to be provided to the City of Santa Clara, California ("City") by National Resource Management, Inc. ("Contractor"), which are more fully described in Contractor's proposal to City entitled "NRM Express Refrigeration Program — Scope of Work" dated August 6th, 2008 ("Proposal"), attached to this Call as Exhibit A and incorporated by this reference. The Services to be performed under this Call shall be completed within the time period beginning on September 18th, 2008, and ending on September 30th, 2009. The attached Proposal contains a complete description of the Services, and performance dates for the completion of such Services, to be performed by the Contractor under this Call. In no event shall the amount paid to the Contractor for the Services provided to City by the Contractor under this Call, including all fees or preapproved costs and/or expenses, exceed two hundred fifty thousand dollars (\$250,000.00), subject to budgetary appropriations.

The Parties acknowledge and accept the terms and conditions of this Call as evidenced by the following signatures of their duly authorized representatives.

# CITY OF SANTA CLARA, CALIFORNIA, a chartered California municipal corporation

| Approved as to Form: |   |
|----------------------|---|
|                      | _ By:                                   |
| HELENE L. LEICHTER   | JENNIFER SPARACINO                      |
| City Attorney        | City Manager                            |
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|                      | Santa Clara, CA 95050                   |
|                      | Telephone: (408) 615-2210               |
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### NATIONAL RESOURCE MANAGEMENT, INC.

a Massachusetts corporation

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#### SUMMARY

National Resource Management, Inc.'s, hereinafter "NRM", Express Refrigeration Retrofit Program, focuses on delivering refrigeration controls, motors, and LED lights to customers with commercial refrigeration equipment. These customers, typically labeled the 'hard to reach customer', include liquor stores, convenience stores, grocery stores, and cold storage facilities (meat, floral and produce).

NRM's Express Refrigeration Program is a direct install program. The program is uniquely designed to provide all of the incentive grants to offset the costs of the equipment yet still fall well within the cost effectiveness goals for SVP. We believe through our unique design, all parties will be served by this program:

- Provide customer with a comprehensive refrigeration audit and proposal and introduce them to technology not availed to them before.
- Provide customer with the latest in technology to optimize the performance of their refrigeration equipment and dramatically reduce their electric bill at no or near zero cost to them.
- Provide customer with on-going technical support through our fully integrated company.
- Provide a large kWh savings to an underserved class that is 'no risk' to SVP. NRM will only be paid incentive dollars as jobs are sold and installed.

#### MARKETING

NRM will market this program directly to SVP customers in order to elicit interest, perform audits, generate proposals and enroll customers in the program. They include:

- □ NRM has conducted several audits for SVP customers over the last year and continues to talk with them about performing an installation. Through the various programs we work within, NRM has found that many people choose to perform an audit but may wait, in many cases, 1 or 2 years to perform an installation due to financial or remodeling reasons.
- ☐ Mail and distribute SVP printed material explaining the program, its benefits and how customers can participate in conjunction with NRM's own marketing information. This will be done in an organized strategic method so as to effectively control and manage leads, and perform audits, evaluations and installations in a timely manner and cost-effective method.
  - □ Cold Calling NRM has found that in order to reach these customers, you must visit them in person, explain how the program works, provide an overview of our products, provide referrals and then enroll them in the program. NRM will explain how the customer can take advantage of the program, what they are expected to pay of the total cost and detail the exact steps of the process: the audit, the evaluation, the proposal, and the installation and payment term options. This is a key step in avoiding any misunderstandings by customers and to set their expectations as to the entire process of participation in the program and its implementation at their facility.

Referrals – NRM uses customers and refrigeration contractors to gain referrals. We have found this to be an extremely effective method of generating more sales. We routinely conduct downloads of our controllers and perform bill analyses to show customers how much they have saved by installing our equipment. We then call on these customers to act on our behalf when we find other customers with similar facilities.

NRM representatives will audit customer sites, identify all potential refrigeration conservation opportunities and fill out a site survey with information needed to generate a proposal. The audit is entered into a computer to generate a cost and savings analysis/proposal with recommended energy conservation measures.

A proposal will be presented to the end user for consideration. The Proposal will show cost savings to the end-user including the ROI and payback. An NRM representative will review and explain the proposal with the customer. If he agrees to the installation and proposed measures, NRM will prepare the agreement contract and obtain customer's authorization to proceed.

# MEASURES/ENERGY SAVINGS STRAGIES TO BE PROPOSED BY NRM

The following energy savings strategies are configured as part of one controller, allowing for a central point of control for the end-user. In addition, each controller can maintain or control up to 3 freezers or coolers (or zones). This helps eliminate redundant equipment and provides for a very cost effective solution.

- COOLER/FREEZER TEMPERATURE & EVAPORATOR FAN CONTROLS Cost effective when the cooler has at least 600 watts of evaporator fan load. While the system maintains temperature in the cooler or freezer, it also controls the evaporator fans. They are turned off approximately 60-85% of the time that the compressor is off depending on existing cooler sizing and configuration. This reduction in energy use by fans also results in less heat introduced into the cooler from the fan motors. The system is also programmed to control the defrost operation and to notify the user of any potential problems that may arise during normal operation, thus reducing both maintenance and product loss. A night setback can be set where no perishables are stored in the cooler, saving the customers 3-5% per degree setback. The CoolTrol system provides runtime statistics for both compressor and evaporator fans. This can alert the customer to operation under inefficient conditions. For example, if there is a slow refrigerant leak the run time (which is shown on the display unit) gradually increases until it can't handle the load.
- COOLER DOOR HEATER The controller monitors the dew point in the store, determines the power level that the cooler heaters need to run at, and pulses a relay at a power level appropriate for the particular dew point. As a result, the door heaters are controlled, automatically, at their optimum energy savings point, without creating condensation. Can be controlled through Cooltrol® or through our stand-alone door heater controller for applications where there are only cooler door heaters to control. Typical savings for cooler doors is 60-95%, depending on ambient conditions in the store.

- FREEZER DOOR HEATER –The controller monitors the dew point in the store, determines the power level that the freezer heaters need to run at, and pulses a relay at a power level appropriate for the particular dew point. As a result, the door heaters are controlled, automatically, at their optimum energy savings point, without creating condensation. Can be controlled through Cooltrol or through our stand-alone door heater controller for applications where there are only freezer door heaters to control. Typical savings for freezer doors is 25-55% depending on ambient conditions in the store.
- NOVELTY COOLER CONTROL NIGHT SHUT OFF Cost effective when the novelty cooler is at least 5 amps and can be shut off for over 5 hours per day. This is typically the 1-3 door cooler provided by beverage vendors (Coke <sup>®</sup>, Pepsi <sup>®</sup>, etc.). Novelty Cooler Control performed through Cooltrol where it can concurrently control a walk-in cooler or freezer. Typical savings for Night shut offs are 20% to 30%. The coolers cannot have perishables stored in them.
- EC (Electronically Commutated) Evaporator Fan Replacement Motor (for walk-ins) Over the last 4 years, NRM has worked in conjunction with major manufacturers to design, manufacture and market the most efficient motor available for walk-in cooler and freezer evaporator coils. The ECM (EC Motor) reduces energy consumption by up to 70% vs. shaded pole motors and up to 40% vs. PSC motors. The motors are manufactured for NRM in different bracket configurations to accommodate replacement in both ceiling mount and wall mount evaporator types. NRM has also custom designed 'retrofit brackets' to accommodate swap outs for older style coils. NRM offers several different models for the myriad of evaporator coils in the market.

ECMs scheduled for release within the next 12 months include replacements for evaporator coils with 1/3 and ½ HP configurations and a ¼, ¾ and 1 HP motors with control mechanisms for rooftop condenser fans.

- EC or SSC (Solid State Commutated) Evaporator Fan Replacement Motor (for reach-in cases) Manufactured for NRM, this motor is designed for replacement of existing shaded pole and PSC motors contained in reach-in coolers and freezers located on the retail floor of grocery stores. NRM's ME25 motor reduces energy consumption by up to 60% vs. shaded pole motors and up to 35% for PSC motors. The motor is designed for NRM with a 'one size fits all' configuration that allows it to be used across a large number of manufacturer equipment types and models. Available in 115V.
- □ LED Retrofits To date, NRM has researched and tested nearly a dozen different LED products for medium temp and low temp applications. Beginning in early June 2008, we are rolling out the latest in technology (Generation VI) of a product that provides optimal energy savings and light distribution. This product is manufactured by Schott Gemtron.
- Replacement of Novelty Visio Coolers Beginning in 2005, NRM began marketing the replacement of the Novelty Visio Coolers with a split system, custom-built, reach-in refrigeration unit. To date, NRM has implemented several of these projects and feedback has been extremely positive from customers with both energy savings realized and the product itself. NRM expects to

continue the sale of this product for the coming years and sees great potential in the number of sites that can benefit by it.

□ Remote Site Manager (RSM) - Over the past 3 years, NRM has developed and marketed an internet based controls system. This system and its components are designed, manufactured and installed by NRM. For each installation a website is created and optional levels of monitoring / support / training and service are provided by NRM. To date, over 150 systems have been installed and yielded positive energy savings. Through a 'gateway' that transfers information over the internet, 3<sup>rd</sup> party controls for lighting and air conditioning, and a custom configurable user interface, customers are able to remotely monitor and control their refrigeration, lighting and air conditioning equipment. Through its custom designed alarms and algorithms, customers can be quickly alerted if equipment is not running efficiently (i.e. compressors are low on Freon, pressure settings are incorrect, etc). Such alarms and 'continuous commissioning' can provide additional energy savings to customers. Additionally, refrigeration system's temperature control and defrost cycles can be fine tuned to yield on-peak demand savings. This product is targeted towards convenience store chains, grocers and cold storage facilities such as fruit/produce distributors and food processing centers. RSM has received several awards from well known groups including Energy Star and Flex Your Power. NRM recently applied to Santa Clara's Energy Innovator awards for an SVP customer, Sierra Meats, where we installed RSM in the Spring of 2007. NRM reduced Sierra Meat's electric bill by over 27%.

#### INSTALLATION

NRM licensed electricians will perform all installations in the SVP area. Each technician is trained to be personable with customers and to deal with any inconsistencies found at time of installation like wiring issues where existing wiring is not up to current electrical code or other safety standards. All of our technicians are required to carry cell phones for quick resolution of potential problems or to deal with a customer's last minute concerns.

## **OUALITY CONTROL**

Since 1995, NRM has taken several steps to ensure quality control for the end user and each utility program.

- □ Thorough training of all staff members performing audits and sales.
- Routine checks of audits by NRM management to ensure accuracy and completeness. NRM has regular meetings to review personnel performance.
- ☐ Implementation of system test checklists and installer sign-offs subsequent to installations.
- Evaluations of installations and regular communications of tips and recommendations for higher quality installs.
- In some cases, installations cannot be performed as audited due to pre-existing wiring conditions, refrigeration equipment functionality or building configuration. Installations that are different from what was audited undergo corrections to proposals, kWh savings and final invoice price.

From time to time or at a customer's request, NRM downloads equipment runtimes from installed CoolTrol system to ensure persistence. Typically, NRM reviews the downloads with customers to explain actual energy savings.

# PROGRAM BUDGET/TARGET/INCENTIVE STRUCTURE

MARKET TARGET - Based on an SIC search, we estimate there are approximately 140 sites with commercial refrigeration in the SVP service territory that could benefit from our equipment. NRM estimates 50 Liquor, Grocery and C-Store sites; 50 Restaurants; 10 Wholesale/Cold Storage (Fruit, Produce, Meat, etc); 30 Other (Hotels with kitchens, schools, universities, etc). Of these, we expect to audit 30 to 50 facilities and sign-up approximately 20 sites. Each site's average cost per project is \$12,500. Based on the requested incentive per kWh saved (see below), we expect some projects to be fully funded and a small amount to not. Assuming all projects average to be 100% funded, NRM is requesting a total budget of \$250,000 (\$12,500 \* 20 sites \* 100% funded through incentives).

INCENTIVE (COST TO SVP) –NRM will charge an incentive cap of 5.5 cents per kWh, assuming a 10 year life for our products, for each project. This is equivalent to 55 cents per kWh for the project's first year's savings. SVP will not pay more than the total cost of each project. SVP will be sent a project invoice and an energy analysis for each project as it is installed. The customer will be invoiced (if applicable) their net cost. Payment terms are net 30 days.

| Program Budget | Lifetime kWh<br>Savings Goal | Max Incentive<br>per Project/<br>Lifetime kWh | Average Cost<br>per Project/<br>Lifetime kWh | Life Assigned to NRM measures |
|----------------|------------------------------|---|--|-------------------------------|
| \$250,000      | 5,000,000                    | 5.5 cents                                     | 5.0 cents                                    | 10 years                      |

### **MEASURE COSTS**

Following is a description of standard offerings of NRM. Also included is the price (materials and labor, no tax) for each measure.

□ WALK-IN COOLER/FREEZER TEMPERATURE & EVAPORATOR FAN CONTROL (COOLTROL®) – NRM charges per solenoid circuit/compressor/cooler/freezer/zone. The 1<sup>st</sup> FC is \$2,095.00. Each additional solenoid circuit/compressor/cooler/freezer/zone is \$1,285.00. Additional charges maybe applied for more intricate installations, such as larger supermarkets and cold storage facilities, which require additional engineering, labor and system functionality.

 $1^{\text{st}}$  FC = \$1,550 materials, \$545 labor Add'l FC = \$840 materials, \$445 labor

□ COOLER DOOR HEATER - NRM charges per circuit or relay installed. The 1<sup>st</sup> cooler door heater circuit/relay is \$1,175.00. Each additional cooler door heater circuit/relay is \$900.00.

 $1^{st}$  DH = \$730 materials, \$445 labor Add'l DH = \$555 materials, \$345 labor

FREEZER DOOR HEATER – NRM charges per circuit or relay installed. The 1<sup>st</sup> freezer door heater circuit/relay is \$1,175.00. Each additional freezer door heater circuit/relay is \$900.00.

 $1^{st}$  FH = \$730 materials, \$445 labor Add'1 FH = \$555 materials, \$345 labor

□ NOVELTY COOLER CONTROL NIGHT SHUT OFF – NRM charges \$325.00 for each novelty unit that is controlled.

Materials = \$170, labor = \$155

- EC (Electronically Commutated) Evaporator Fan Replacement Motor (for walk-ins) NRM charges \$305.00 for each motor that is replaced with its standard ME59 and ME30 ECM (Materials = \$165, labor = \$140). This motor replaces standard 1/20 HP motors. This price includes any blades or brackets that maybe needed in the retrofit. Larger size HP motors, for example our ME125 ECM cost \$430 per motor (Materials = \$290, labor = \$140). Pricing for 1/3 and ½ HP motors for walk-ins will be available upon their commercial release.
- SSC<sup>2</sup> (Solid State Commutated) Evaporator Fan Replacement Motor (for reach-in cases) NRM charges \$130.00 for each ME25 that is replaced in a case. This includes pre-metering motors in the cases to determine existing motor type (shaded pole, PSC, ECM) and existing wattage draw to calculate savings. This also includes associated labor costs to replace motors that typically must be done at night or during off hours and requires moving food in cases.

  Materials = \$65, Labor = \$65
- □ LED LIGHTBAR REPLACEMENT For Freestanding Units and Walk-ins NRM charges \$445.00 for each door on a Walk-in or F/S Unit that is replaced with its NSG-60 DF LED Light Bar (Material = \$355, Labor = \$90) and \$490.00 for each door on a Walk-in or F/S Unit that is replaced with its NSG-72 DF LED Light Bar (Material = \$400, Labor = \$90).

### PROGRAM OBJECTIVES

1. Conduct 50 Audits and Evaluations within the first 12 months of the program.

2. Perform up to 20 installs within the first 12 months of the program – this will deplete program budget and deliver at least 5,000,000 lifecycle kWh.

3. Obtain feedback from customers of the program that they are happy with their installations and achieved estimated savings.

4. Receive feedback from refrigeration contractors for our customers that they understand how the system works.

5. For those customers that did not participate in the program due to incentive limitations, receive feedback they would like to participate in the future if the program is extended in duration.

### 1.9 PROGRAM IMPLEMENTATION

Program Development - September 18, 2008. We do not envision this portion of the program to take long. Most the documents and materials are already developed and are being used consistently across our other programs.

- 1. Develop one page document (marketing piece) which describes NRM Express Refrigeration Program for SVP. This collateral piece will be given to target group at the time of the audit.
- 2. SVP/NRM Review of existing collateral materials that describe our products. These are the materials that will be provided to target group during the audit and evaluation.
- 3. SVP/NRM Review of NRM Work and Authorization Form. This is the contract that indicates the customer would like to move forward with a project.
- 4. SVP/NRM Review of analysis tool which estimates savings based on audited information. This should not take long since it has been reviewed by SVP for projects that we have done under a different program.

Program Delivery - October 2008 through September 2009

1. Audit/Evaluation – This portion of the program will begin when Program Development phase ends. It will run through September 30<sup>th</sup> 2009 or until all funds are accounted for with customers that have enrolled. NRM will provide SVP monthly reports that list all sites where an audit has been conducted, status of the project (customer is interested, not interested, enrolled) and potential lifetime savings at that site.

#### Goals for this task are as follows:

|                  | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 |
|------------------|---------|---------|---------|---------|
| Audits           | 15      | 15      | 10      | 10      |
| Signed Contracts | 3       | 7       | 8       | 2       |

2. Installation – This portion of the project will begin within 45 days of the first customer enrollment. It is likely to run from December 2008 through September 30<sup>th</sup> 2009 or until all customers who have enrolled in Audit/Evaluation have undergone an installation. NRM will provide SVP monthly reports that list all sites where an installation has taken place, the project cost, the incentive amount, the kWh savings and KW savings. Additionally, monthly invoices will be mailed (one for each site) that has a complete breakdown of what has been installed, accompanied by an installer completion form. Finally, a detailed energy analysis will also be provided that details and quantifies the energy savings for each measure installed.

#### Goals for this task are as follows:

|                    | Q4 2008 | Q1 2009   | Q2 2009   | Q3 2009 |
|--------------------|---------|-----------|-----------|---------|
| # Installs         | 1       | 8         | 9         | 2       |
| Lifetime kWh Dlvrd | 250,000 | 2,000,000 | 2,225,000 | 500,000 |

3. Payment –Invoices will be mailed at the end of each month for all installations performed during that month. They will be created by site. As previously stated in Section 1.3.3, SVP will pay 5.5

cents per lifetime kWh, with an incentive amount not to exceed the total material and labor cost of the installation. The customer will be responsible for the difference between the total project cost and SVP incentive (if applicable). Payments to NRM are net 30 days.

### QUALITY ASSURANCE AND MEASURE VERIFICATION ACTIVITIES

Upon a customer signing a contract with NRM to proceed with the recommended measures, the following steps are taken:

- 1. Installer paperwork is created from our software tool that is derived from what we specified for their site and customer agreed to.
- 2. Canton, MA facility puts together 'job kit', programs controls and performs test of equipment.
- 3. Equipment is shipped to Union City, CA office.
- 4. NRM Installer receives equipment, confirms equipment against audit and Installer paperwork and sets appointment with customer for installation.
- 5. NRM Installer installs equipment, tests equipment, completes Installer Completion Form and trains customer. Customer signs Installer Completion Form that verifies Installer reviewed everything with them.
- 6. If needed, Energy analysis is modified based on 'as-built' (if different from what was specified\*). Customer information is then entered into NRM Service Software so that if customer calls with service issues, Service Dispatch has all necessary paperwork and information to trouble shoot over the phone and/or dispatch service technicians. All customer phone calls, questions and resolutions are tracked within Service Software.
- 7. Issue Resolution Please note that NRM maintains a Service Technician Line that is available to customers during normal business hours. During off hours, customers can leave messages and on call technicians are paged. On Call technicians will then get in touch with the customer.
  - Most issues are refrigeration related issues. However, NRM works with customers to solve these issues which include conducting downloads of Cooltrol. Through this process, we are able to look back in time at how the controls are working in conjunction with customers' refrigeration equipment and solve problems.
  - \*Please note In some instances, due to wiring issues or existing code violations, NRM installers cannot install the equipment as originally specified. As a result, if these preexisting conditions cannot be fixed, NRM will install what we can. The customer is informed at the time that this will happen.

### MEASUREMENT AND VERIFICATION ACTIVITIES

Should SVP decide to have M&V activities performed on the Express Refrigeration Program by a 3<sup>rd</sup> Party, NRM can help write the M&V Plan. Because of the ability to download runtimes from Cooltrol, NRM can train the selected vendor in the proper protocol for downloading and how to calculate actual savings from these downloads. If RSM is installed as part of a particular project, 3<sup>rd</sup> Party evaluations can be done by accessing the site via the internet.